

### REMARKS

This responds to the Office Action dated April 1, 2005. Claims 1, 9, 11, and 14-16 are amended, and claims 17-20 are newly added. Consequently, claims 1-20 are now pending in this application.

#### §112 Rejection of the Claims

Claim 11 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 11 is amended to better recite the claimed subject matter. Applicants respectfully request reconsideration and allowance of claim 11.

#### §102 Rejection of the Claims

Claims 1, 8, 11, and 14-15 were rejected under 35 U.S.C. § 102(b) as being anticipated by Smart et al. (U.S. Patent No. 5,892,834, "Smart"). Applicants respectfully traverse the rejection. Detailed responses to the rejection are as follows:

##### *Claim 1*

Applicants amended claim 1 to correct a clerical error and thereby insert an "and." Applicants respectfully traverse the rejection of claim 1. Applicants respectfully submit that the rejection incorrectly asserts, among other things, "... the microcontroller receiving and outputting a digital signal via a digital bus to provide a gain control signal to the VGA indicates digital gain control and a compression recapture system (figure 1, col. 4, lines 13-37)." Figure 1 of Smart shows a microcontroller 12 feeding a digital gain control signal to a variable gain amplifier 6 in conjunction with a volume control 14. In contrast, claim 1 recites, among other things, a digital gain control to control gain of the variable gain amplifier, and a compression recapture system outputting a second digital signal that essentially represents a compressed portion of the analog signal, and an output to reproduce the input signal based on the first and second digital signals. Thus, the rejection fails to show how Smart provides the recited first and second digital signals, digital gain control, the compression recapture system, and the output. Applicants respectfully request that the rejection be withdrawn and allowance of claim 1.

*Claim 8*

Applicants respectfully repeat the defects set forth in the rejection of claim 1 in traversing the rejection of claim 8. Reconsideration and allowance are respectfully requested.

*Claim 11*

Claim 11 was amended to correct antecedent basis of terms. Applicants respectfully repeat the defects set forth in the rejection of claim 1 in traversing the rejection of claim 11. Reconsideration and allowance are respectfully requested.

*Claim 14*

Applicants amended claim 14 to more clearly recite the claimed subject matter. Support for the amendment is found generally in the specification, and at, but not limited to, about page 17, line 15. Insofar as the rejection is applied to claim 14, Applicants respectfully traverse the rejection. Applicants are unable to find in the cited portions of Smart, among other things, restoring an output signal of the input stage to include a compressed portion of the input signal, as recited in claim 14. Reconsideration and allowance of claim 14 are respectfully requested.

*Claim 15*

Applicants amended claim 15 to more clearly recite use of a feed back approach. Support for the amendment is found in the specification generally, and at, but not limited to, about page 16, line 12. Insofar as the rejection is applied to claim 15, Applicants respectfully traverse the rejection. Applicants repeat the defects noted for the rejection of claim 14. Reconsideration and allowance of claim 15 are respectfully requested.

§103 Rejection of the Claims

Claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Smart. Applicants respectfully traverse the rejection. Claim 10 is believed patentable as a further recitation of independent claim 1. The defects noted above in the rejection of claim 1 are repeated herein to traverse the rejection of claim 10. Reconsideration and allowance are respectfully requested.

Allowable Subject Matter

Claims 2-7, 9, and 12-13 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 9 was amended to correct a spelling error. The limitations were not added to the claims as it is believed that the current claims are allowable. Reconsideration and allowance of all pending claims is earnestly requested.

New Claims

Claim 17 is new. Support for the recited subject matter is found generally in the specification, including, but not limited to, at page 16, line 12. Claims 18-20 are also new. Support for the recited subject matter is found generally in the specification, including, but not limited to, at Pp. 16-20 and the figures relating thereto. Consideration and allowance of the new claims are respectfully requested.

**CONCLUSION**

Applicants respectfully submit that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicants' attorney at (612) 373-6912 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

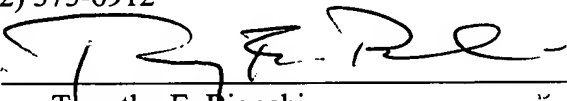
Respectfully submitted,

GARRY RICHARDSON ET AL.

By their Representatives,

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Date Sep. 30, 2005

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 30 day of September, 2005.

KATE GANNON  
Name

  
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